

REMARKS

Fifty-one claims are pending in the present Application. Claims 1-5, 7-25, and 27-51 currently stand rejected. Claims 6 and 26 are objected to, but would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims. Claims 1, 6, 12, 16-18, 26, 32, and 36-38 are amended herein. Reconsideration of the Application in view of the foregoing amendments and the following remarks is respectfully requested.

Claim Objections

In paragraph 1 of the Office Action, the Examiner objects to claim 37 for “informalities”. Applicants accordingly amend claim 37 and claim 17 to change “said allocated isochronous channel” to “said allocated memory channel” to thereby correct the informalities. Applicants therefore respectfully request the Examiner to withdraw the objection to claim 37.

Rejection under 35 U.S.C. §112, Second Paragraph

In paragraph 3 of the Office Action, the Examiner indicates that claims 12, 16-20, 32, 36, and 38-40 are rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner indicates that claims 12, 16-18, 32, 36, and 38 have limitations for which there is “insufficient antecedent basis”. Applicants therefore amend claims 12, 16-18, 32, and 36-38 to provide sufficient antecedent basis for the claimed limitations. In view of the foregoing remarks

and/or amendments, Applicants believe that the Examiner's rejections are addressed, and respectfully requests that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn so that claims 12, 16-20, 32, and 36-40 may issue in a timely manner.

Double Patenting

In paragraph 5 of the Office Action, claims 1-44 and 50-51 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/352,260. In response, Applicants herewith submit a terminal disclaimer in compliance with 37 CFR 1.321(c) to overcome the provisional rejection under the judicially created doctrine of obviousness-type double patenting. Applicants submit that the conflicting Application and the present Application are commonly owned. Applicants therefore respectfully request the Examiner to withdraw the rejection of claims 1-44 and 50-51 under the judicially created doctrine of obviousness-type double patenting.

In paragraph 6 of the Office Action, claims 1-2, 6-22, 26-43, and 50-51 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,578,109. In response, Applicants herewith submit a terminal disclaimer in compliance with 37 CFR 1.321(c) to overcome this rejection under the judicially created doctrine of obviousness-type double patenting. Applicants submit that the conflicting

Application and the present Application are commonly owned. Applicants therefore respectfully request the Examiner to withdraw the rejection of claims 1-2, 6-22, 26-43, and 50-51 under the judicially created doctrine of obviousness-type double patenting.

In paragraph 7 of the Office Action, claims 3-5 and 23-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 16 of U.S. Patent No. 6,453,376 to Fairman et al. (hereafter Fairman). Applicants respectfully traverse. Fairman is directed towards a “resource characterization set” that is utilized by an “allocation manager” to allocate guaranteed resources for a requested process. In contrast, Applicants’ claimed invention is directed towards implementing “a memory device . . . configured for storing said priority information”. Applicants submit that Fairman nowhere teaches designating special memory locations for storing information such as isochronous data on a priority basis. For at least the foregoing reasons, Applicants therefore respectfully request the Examiner to withdraw the rejection of claims 3-5 and 23-25, and 50-51 under the judicially created doctrine of obviousness-type double patenting.

35 U.S.C. § 102(e)

In paragraph 9 of the Office Action, the Examiner rejects claims 1-5, 21-25, 41-44, and 50-51 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,192,428 to Abramson et al. (hereafter Abramson). The Applicants respectfully traverse these rejections for at least the following reasons.

“For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be *identically* shown in a single reference.” *Diversitech Corp. v. Century Steps, Inc.*, 7 USPQ2d 1315, 1317 (CAFC 1988). The Applicants submit that Abramson fails to identically teach every element of the claims, and therefore does not anticipate the present invention.

Regarding the Examiner’s rejection of independent claims 1 and 21, Applicants respond to the Examiner’s §102 rejection as if applied to amended independent claims 1 and 21 which are now amended to recite a “*memory device being reconfigurable into separate memory channels that are each mapped to a different process,*” which are limitations that are not taught or suggested either by the cited reference, or by the Examiner’s citations thereto. Applicants submit that the foregoing amendments are supported by claims 6 and 26, as originally filed, and therefore do not necessitate a new search.

Abramson teaches a “dynamically changing draining priority in a first-in/first-out (“FIFO”) device to prevent over-run errors” by referencing a “high watermark value” (column 2, lines 2-9). Abramson is therefore limited to operation of a single FIFO device, and nowhere discusses operations in a Random-Access Memory (RAM). In contrast, Applicants disclose and claim

reconfiguring a memory device to dynamically create “separate memory channels that are each mapped to a different process.” Applicants therefore respectfully submit that Abramson fails to teach all the elements of amended claims 1 and 21.

Regarding the Examiner’s rejection of dependent claims 2-5, 22-25, and 41-44, for at least the reasons that these claims are directly or indirectly dependent from respective independent claims whose limitations are not identically taught or suggested, the limitations of these dependent claims, when viewed through or in combination with the limitations of the respective independent claims, are also not identically taught or suggested. In addition, with regard to claims 2 and 22, Applicants submit that Abramson nowhere teaches or discloses “isochronous data” as recited by Applicants in claims 2 and 22. Applicants therefore respectfully request reconsideration and allowance of dependent claims 2-5, 22-25, and 41-44, so that these claims may issue in a timely manner.

With regard to claim 51, “means-plus-function” language is utilized to recite elements and functionality similar to those recited in claims 1 and 21 as discussed above. Applicants therefore incorporate those remarks by reference with regard to claim 51. In addition, the Courts have frequently held that “means-plus-function” language, such as that of claim 51, should be construed in light of the Specification. More specifically, means-plus-function claim elements should be *construed to cover the corresponding structure, material or acts described in the specification*, and equivalents thereof.

Applicants respectfully submit that, in light of the substantial differences between the teachings of Abramson and Applicants’ invention as disclosed in the

Specification, claim 51 is therefore not anticipated or made obvious by the teachings of Abramson. Applicants specifically direct the Examiner's attention to Applicants' discussion of FIGS. 8-10 (Specification, page 14, line 25 through page 17, line 19) which describes in detail the Applicants' claimed "means for configuring a memory device"

Because a rejection under 35 U.S.C. §102 requires that each claimed limitation be *identically* taught by a cited reference, and because the Examiner fails to cite Abramson to identically teach or suggest the claimed invention, Applicants respectfully request reconsideration and allowance of claims 1-5, 21-25, 41-44, and 50-51 so that these claims may issue in a timely manner.

35 U.S.C. § 103

In paragraph 11 of the Office Action, the Examiner rejects claims 7-17, 27-37, and 45-49 under 35 U.S.C. § 103 as being unpatentable over Abramson in view of U.S. Patent No. 6,378,056 to Nizar et al. (hereafter Nizar). The Applicants respectfully traverse these rejections for at least the following reasons.

Applicants maintain that the Examiner has failed to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a) which requires that three basic criteria must be met, as set forth in M.P.E.P. §2142:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation

of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

The initial burden is therefore on the Examiner to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Applicants respectfully traverse the Examiner's assertion that modification of the device of Abramson according to the teachings of Nizar would produce the claimed invention. Applicants submit that Abramson in combination with Nizar fail to teach a substantial number of the claimed elements of the present invention. Furthermore, Applicants also submit that neither Abramson nor Nizar contain teachings for combining the cited references to produce the Applicants' claimed invention. The Applicants therefore respectfully submit that the obviousness rejections under 35 U.S.C §103 are improper.

With regard to claims 7-17 and 27-37, the Examiner concedes that Abramson does not specifically disclose all of Applicants' claimed limitations. The Examiner then points to Nizar to purportedly remedy these deficiencies. Applicants respectfully traverse. Nizar teaches "using configuration registers in a memory controller to designate initialization operations for memory initialization" (column 2, lines 21-23).

Nizar is therefore limited to performing "initialization operations" with a memory controller. In contrast, Applicants disclose and claim dynamically reconfiguring a memory device after memory initialization has already occurred. Furthermore, unlike Nizar, Applicants' claimed invention advantageously creates "separate memory channels that are each mapped to a different process."

Applicants therefore submit that Nizar teaches away from Applicants' invention. A prior art reference which teaches away from the presently claimed invention is "strong evidence of nonobviousness." In re Hedges, 783 F.2d 1038, 228 U.S.P.Q. 2d 685 (Fed.Cir. 1987).

Further regarding the Examiner's rejection of dependent claims 7-17, 27-37, and 45-49, for at least the reasons that these claims are directly or indirectly dependent from respective independent claims whose limitations are not identically taught or suggested, the limitations of these dependent claims, when viewed through or in combination with the limitations of the respective independent claims, are also not identically taught or suggested. Applicants therefore respectfully request reconsideration and allowance of dependent claims 7-17, 27-37, and 45-49, so that these claims may issue in a timely manner.

With regard to dependent claims 48 and 49, Applicants respectfully submit that Nizar nowhere teaches that "a transfer arbiter separately limits access to one or more of said write bus and said read bus by allowing a respective current transfer operation to complete before authorizing a respective subsequent corresponding transfer operation to begin," or that "said write operation and said read operation occur concurrently," as claimed by Applicants.

In the rejections of claims 7-17 and 27-37, the Examiner concedes that the cited references fail to explicitly disclose various of Applicants' claimed limitations. The Examiner then states that those claimed limitations are "well known in the art" as support for the rejections without providing any specific references for support. It appears that the Examiner is utilizing Official Notice

without expressly stating so. Applicants therefore respectfully request the Examiner to cite specific references in support of these rejections, and failing to do so, to reconsider and withdraw the rejections of claims 7-17 and 27-37, so that the present Application may issue in a timely manner.

Furthermore, the Court of Appeals for the Federal Circuit has held that "obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination." In re Geiger, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987). Applicants submit that there is no teaching of a combination that would result in Applicants' invention, and therefore the obviousness rejection under 35 U.S.C §103 is not proper.

Applicants submit that the cited references, in combination with the Official Notice, do not suggest a combination that would result in Applicants' invention, and therefore the obviousness rejections under 35 U.S.C §103 are improper. Applicants therefore respectfully request the Examiner to cite references in support of the Official Notice, and to also indicate where an explicit teaching to combine the cited reference may be found. Alternately, the Applicants request that the Examiner reconsider and withdraw the rejections of claims 7-17 and 27-37 under 35 U.S.C §103.

For at least the foregoing reasons, the Applicants submit that claims 7-17, 27-37, and 45-49 under are not unpatentable under 35 U.S.C. § 103 over Abramson in view of Nizar, and that the rejections under 35 U.S.C. § 103 are thus improper. The Applicants therefore respectfully request reconsideration and

withdrawal of the rejections of claims 7-17, 27-37, and 45-49 under 35 U.S.C. § 103.

Allowable Subject Matter

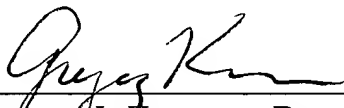
In paragraphs 6 and 7 of the Office Action, the Examiner indicates that claims 6, 18-20, 26, and 38-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants therefore amend claims 6, 18, 26, and 38 in independent form including all of the limitations of the base claim and any intervening claims, to thereby place claims 6, 18, 26, and 38 in condition for immediate allowance. Claims 19-20 depend from amended claim 18, and claims 39-40 depend from amended claim 38, and therefore are also in condition for immediate allowance.

Summary

Applicants submit that the foregoing amendments and remarks overcome the Examiner's objections and rejections to claims 1-51. Because the cited references, or the Examiner's citations thereto, do not teach or suggest the claimed invention, and in light of the differences between the claimed invention and the cited prior art, Applicants therefore submit that the claimed invention is patentable over the cited art, and respectfully request the Examiner to allow claims 1-51, so that the present Application may issue in a timely manner. If there are any questions concerning this amendment, the Examiner is invited to contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,

Date: 12/2/03

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